



About us

Blue Ocean Nano Paint and Coatings Co. have been stabilized on 2015 by a group of university graduates and private sector investment. Our company has organized its activities with taking advantage of a worthy asset of manpower in manufacturing, execution and consulting field in order to make a transformation in paint and coatings field especially in Industrial, Protective, anti-corrosive and marine coating systems.

Blue Ocean with the aim of innovation and technologies especially Nano-technology in the paint and coating industry and in the field of marine, oil, gas, and petrochemical industries always tries to supplying customer needs with the latest technology and science achievements. Also, the specialized and knowledge-based team of this company will be ready at any time to provide technical advice and technical assistance of the customers.

Blue Ocean Nano Paint and Coatings Co. have a several Scientists and researchers in the field of ceramic, Nano-materials, paint and coating. We have been able to produce smart coatings, high tech anti-corrosive and marine coatings based on Nano-technologies and higher than international standards. Some of our products are unique in the world and we can guarantee them for a long time as well as they have an international certificate.

Our company has achieved a level of knowledge that is ready to produce any particular specialty in various fields of coating and paint.

Blue Ocean Nano Paint and Coatings Co. strategies are innovation and also technologies. For this purpose, Our Company as a knowledge-based Company has more than ten unique products. Also, we registered patents for several inventions in the field of smart coatings, marine and industrial Nano-high tech coatings and Nano-quantum.





Vision of Blue Ocean In the next five years

- %100 of the domestic market and %10-5 of the global market share of industrial, protective and marine coatings.
- . Leading in providing high tech industrial, protective and marine coating.
- . Setting up the country's largest research center.
- · Production of all types of nanoparticles and smart materials.

Mission of Blue Ocean

- Efforts to achieve quality in product and reduce costs through innovation, services and products, research activities, and promotion of color and coating industry standards.
- Commitment to the environmental standards of marine coatings and all its applications, and efforts to improve services and products.
- · Planning for industry leadership.
- · Achieve proper product share in domestic and foreign markets.

Quality & HSE

Something We Take It Seriously

Blue Ocean Nano Paint and Coatings Company, as a manufacturer of eco-friendly environments of industrial and marine paint and coatings, has been able to receive global quality and environmental standards from institutions approved by the International Maritime Organization such as Bureau Veritas from the French. We are aware that in the offshore oil & gas and marine industry, priority number one is quality. To provide our clients with the best quality and services, we have established and are running our businesses according to the Quality Guideline. In accordance with our management goal of becoming the number one leading company for providing paints for offshore oil & gas facilities and marine vessels in Iran and even in the region, all employees at Blue Ocean Nano Paint and Coatings Company, guideline according to our established Quality Guideline. This guideline is helping our company to develop into a prestigious company by providing our clients with the best products. To sustain our continuous quality performance, we monitor the effectiveness of our quality initiatives, ensuring that all activities are carried out as planned. We also ensure that all our facilities are well maintained so as to function reliably and optimally to meet high standards of performance at all times.



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Why Blue Ocean Nano Paint & Coatings?

The shipping industry is the most important transport industries in the world.

The problem of corrosion, adhesion of fouling and barnacles has long been the concern of ship owners, shipyards and the activists of this industry.

Although the use of anti-fouling paints based on metals such as copper and zinc are used as a solution to prevent this phenomenon, but the environmental impact, cost of hull cleaning and short-lifetime of this type of paints leads to ships and vessels in short periods of time stopped at the duck. These phenomena import the heavy coat to ships owner, maritime owners.

Blue Ocean Nano Paint and Coatings Co, as the only manufacturer of marine knowledge-based paints Country and designer of various industrial coatings and anti-corrosion primers that have been successfully registered patents for several inventions in the field of smart coatings, marine and industrial Nano-high tech coatings and Nano-quantum.

The scientists of this company, with the application of Nanotechnology Science and also with responsible behavior towards the Marine environment, they have managed to produce nanotechnology-based smart coatings that prevent the adhesion of micro-organisms and fouling to surfaces due to its hydrophobicity and tensile properties. These Nano-coatings have a smooth surface on a nanoscale surface that has the same performance and surface properties as the shark and dolphin skin.

The Nano Fouling Release Coatings of this company due to without of any biocide and metal compounds in the chemical structures, they are environmentally friendly and well compatible with eco-system marines. Also, Due to high chemical and weathering properties and also lack of adhesion of barnacles and microorganisms to the surface of coatings, the corrosion of the substrate is reduced.

The coating with at least 5 years old, has a more shelf life in comparison with commercial anti-fouling systems. Using these smart coatings will reduce the weight of the ship, reduce the friction coefficient of surfaces with sea water, increase ships speed and reduce fuel consumption between 5 to 7 percent. Also, the fouling separation and Hull cleaning of the ships will be zero at the time of floating at sea level.

For the first time in the region, this company has received international certification based on the International Maritime Organization (IMO) regulations from the International Bureau Veritas Classification (BV).

Other products of this company include anti fouling, industrial, protective and self-cleaning marine coatings such as zing and hybrid coatings for use in oil, petrochemical, pipelines, bridges, oil platforms and industrial structures. They have high corrosion resistance in marine environments with a minimum age of 15 years.

This ultra-advanced paint in addition to use in floats and ships can be used in berths, ports, oil platforms, oil pipelines and all metal structures that are at sea and at risk of corrosion and adhesion of fouling and microorganisms.







Saving Cost

- The long life of underwater coatings is at least five years.
- The long life of industrial coatings in the marine environment is at least seven years.
- The hull cleaning of ships was omitted in different time periods.
- Although organisms may inhabit a BONPC 1100 coated hull that remains stationary, as soon as the vessel moves through the water at speeds as low as 8 knots they become unable to retain their grip and are simply washed-off.
- . The amount of paint consumed is reduced.
- · No decrease of ship speed.
- Reduced fuel consumption between 5 to 7 percent .
- Reduce ducking operations. It means that during 5 years, at least 5 times the arrival of the ships and vessels to the dock are prevented. Also, the average of 75 to 100 days is a benefit for ships and floating owners.
- · Reduced coating weight.
- Painting time is reduced.
- The number of sea trips increases.
- Our products have the highest environmental standards.

Why High Tech paint and Coatings?

Development of science and technology in paint and coating industry leads to the production of advanced products in this field. These coatings, often based on nanotechnology that are presented in various industries with the aim of improving physical, mechanical, chemical and surface properties. In the oil, gas and petrochemical industries, advanced coatings have been designed to prevent the corrosion phenomenon. In marine industries, they are produced with the aim of preventing the attachment of microorganisms and fouling to the surface of coatings and increasing the performance of coatings.

The main advantages of these coatings are environmentfriendly, preventing of corrosion mechanisms, prevent fouling accumulation to surface, increase the performance of coatings, no decrease of ship speed, reduced fuel consumption lower corrosion of body ships as well as reducing ducking operations. The efforts of researchers, manufacturers, and owners of these industries to create added value for consumers and economic efficiency.





Quantum Nano Materials

Semiconductor products can be controlled to be from Nano to quantum dot sizes. Quantum dot products (QDs) are comparable with the commercialized ones and adopted for marine coatings. Today, different technologies such as LED displays and solar cells have been developed by QDs. The main duty of QDs is an enhancement of efficiency and performance of devices. The width of The particle size distribution and the size of QDs are below 1 nm and up to 10 nm size, respectively. Suitable surface functions for suitable marine formulation have been placed on the surface of ultrafine particles. The Most products are divided into three different categories:i) oxide semiconductors such as copper, zinc, cerium and tungsten oxides, ii) non-oxide semiconductors such as cadmium or zinc selenide, Telluride or sulfide and carbon nanostructures such as carbon nanotubes or graphene. All products are safe and environmentally friendly and release of toxic metals such as cadmium are prevented by passive shells. High efficiency in lower amounts has resulted from the high surface energy of ND. BONN products and improves both deceptively and inhibitory effects in marine paints and coatings.



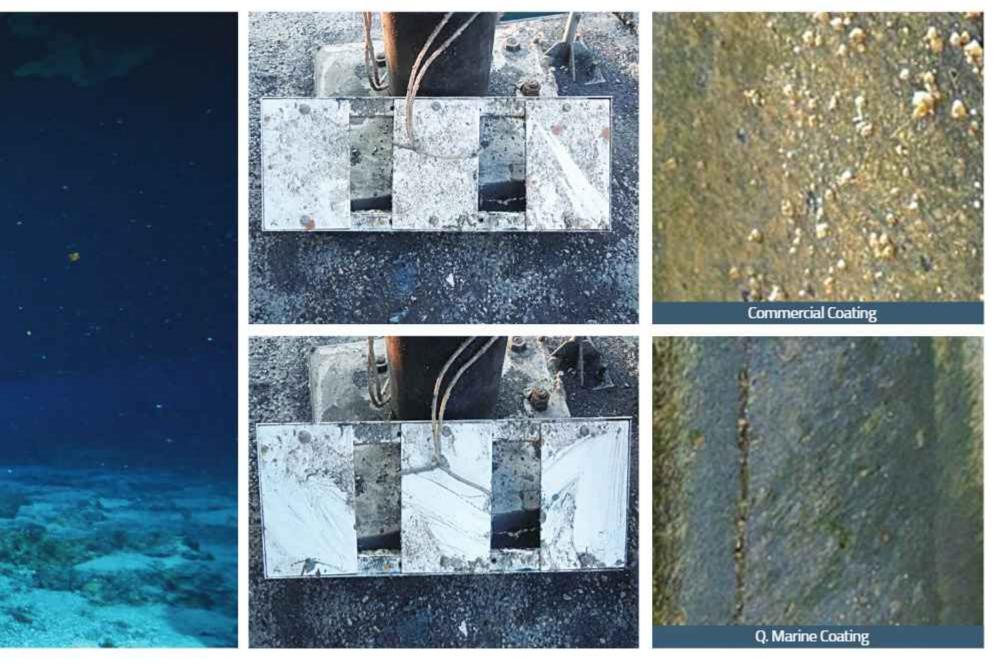




Nano Materials Devision

Nanomaterials Division of Blue Ocean Nano paint and coatings company (ND. BONPAC) has been focused on the usability of various nanomaterials in several coatings, especially marine ones. Different steps of research such as synthesis of nanomaterials, surface modification, and application in coatings have been studied. From the structure view, oxide or non-oxide Nanoproducts are from aluminate – phosphate –carbonate spinel's, sphalerite or wurtzite non-oxides and cubic – hexagonal oxides. Several microstructures such as wire, rod, tube, sphere and platelike in zero, one, two or three dimensions can be obtained and tuned according to the customer requests. Commercial methods have been used and developed for the synthesis of Nanoproducts such as i) Polyol, the explosion of metal wire and condensation from vapor for metals, ii) Co-precipitation, hydrothermal, sol-gel and combustion for ceramics and iii) chemical vapor deposition (CVD) and wet chemical methods for carbon nanostructures. Most of the products have narrow size distributions below 50 nm. They have been adjusted to be non-agglomerated in polar or non-polar solvents.





Apply (three layers)

Usually, to implement a three-layer system of epoxy-polyamide primer as the first layer and preferably of zinc-rich epoxy-polyamide primer, the middle layer with different thicknesses (which is removed in some cases), the top layer, which is made of polyurethane in external cases becomes

Surface preparation:

The minimum degree of surface cleanliness required according to the SSPC-SP10 standard should be SA-2/1 2SA3, and the minimum surface roughness of 50 microns is appropriate. After sandblasting, all dust is removed and the first layer (primer) can be sprayed immediately.

How to use epoxy and polyurethane paint:

First, mix the first component well with a stirrer until it becomes uniform, then add the second component (hardener) little by little, paying attention to the percentage of color to the hardener and mix it well. To dilute the color, the corresponding thinner is added gradually. (The shelf life of the paint and hardener mixture is very important until the POT LIFE dries.) The reaction starts a few minutes later and must be consumed at a temperature of 25 degrees according to the shelf life of the paint.

Dyeing temperature:

The ambient temperature for spraying paint is between 40-10 degrees Celsius.

The surface temperature should be 3 degrees higher than the dew point and the relative humidity should be less than %80.

Spraying equipment:

- · brush and roller
- · Electric or air mixer
- AIRLESS SPRAY machine
- HOT AIRLESS SPRAY device
- Spraying equipment details:

Zinc Rich Epoxy:

- AIRLESS SPRAY nozzle with a nozzle diameter of 0.5-0.4 mm and a minimum pressure of 140 BAR.
- AIR SPRAY spray nozzle with a diameter of 2-1.5 mm and a minimum pressure of 5-3 BAR

Middle dye MIO epoxy amide:

- The dimensions of the AIRLESS SPRAY nozzle are 0.457-0.660 mm
- The dimensions of the AIR SPRAY spray nozzle are 2.2-0.2 mm

or intermediate HB amide epoxy paint:

- AIRLESS SPRAY spray nozzle with a nozzle diameter of 0.017-0.015 inches
- CONVENTIONAL SPRAY nozzle with a diameter of 2-1.8 mm

Polyurethane top color:

- AIRLESS SPRAY spray nozzle with a nozzle diameter of 0.013-0.015 inches
- CONVENTIONAL SPRAY nozzle with a diameter of 1.6-1.4 mm



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Zinc rich epoxy primer

This coating is designed as an primer paint based on epoxy resin and polyamide hardner, which also contains zinc powder as an anti-corrosion pigment.

Types of zinc-rich primers

· Organic: In this category of zinc-rich epoxies, organic zinc metal is used for enrichment. This type of coating is easier to apply than inorganic coatings. These coatings are usually designed in such a way that in the dry state they contain %75 or more, be zinc metal, the hardening material in this type of coatings surrounds zinc more than inorganic coatings, so the protection of organic coatings against corrosion is less than inorganic coatings, and they are often used to repair and restore mineral coatings These coatings are less resistant to heat and wear than inorganic coatings. . Inorganic: In this category of zinc-rich, mineral zinc has been used for enrichment, in this type of coatings, silicate resin have been used. Inorganic coatings have better protection against corrosion than organic coatings. Coatings need very clean surfaces to be applied. Good mechanical characteristics, high resistance to impact and high resistance to scratches and wear are among the characteristics of inorganic zinc rich coating. It also has good thermal resistance up to a temperature of 400 degrees Celsius.





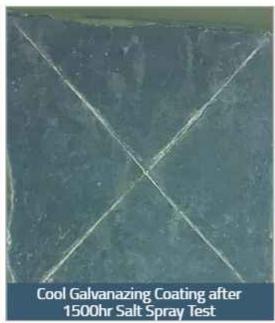


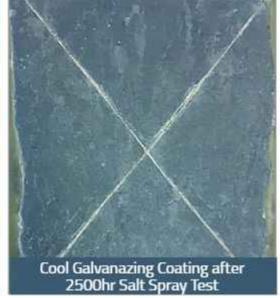
Surface rusting

Rusting. The factors that cause surface rusting are.

- **01.** humidity, salt, material of chemicals, etc. cause surface rusting, which eventually causes boiling, blistering and corrosion of the dry painted film. The rate of corrosion increases.
- 02. Painting on surfaces that are contaminated with previous or old rust particles.
- O3. Painting on surfaces that are contaminated with anti-rust chemicals.
 Explanation: If you see such a film, completely sandblast the surface and repaint it while preserve the standard principles.













Galvasilver

GALVASILVER is a one component zinc rich coating or Film Galvanising System containing %96 zinc (dust) in its dry film. It is a metallic coating and not a paint. The purity of the zinc used, is so high that dry ZINGA does not contain any toxic elements.

GALVASILVER is a unique form of corrosion protection because it provides both Active and Passive protection in a form that's as easy to apply as a paint.

GALVASILVER was originally invented at the University of Ghent (UGent), Belgium, in the 1970s and has since been used in a wide variety of projects throughout the world.

GALVASILVER is an active zinc performance coating which works in conjunction with the metal beneath, whereas paints are only passive barriers. Regardless of how thick paints are applied, they remain as barriers. Once they are breached, corrosion sets in immediately. Despite this significant difference GALVASILVER is still often mistaken for a paint simply because it's liquid and comes in a tin. But there are other more subtle differences. For example it does not "skin over" in the tin because GALVASILVER has an unlimited pot-life and it doesn't go "tacky" like paint.





		جدول محصولات شركت اقيانوس آبي			
كد محسول	نام محسول	نوع رنگ	ردېت		
PR500	گالواسیلور زینکا	پوشش صنعتی ضد خوردگی	1		
PR500	اسیری گالواسیلور زینگا	رنگ اسپری	2		
EP141	رویه اپوکسی پلی آمین		3		
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EP156	ایوکیی آمید مخصوص آب آشامیدنی		5		
EP157	اپوکسی آمین مخصوص آب آشامیدنی		6		
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EP149	كولتار اپوكسى آمين		8		
EP117	اپوکسی آمین 'گلس فلیک		9		
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EF141	رويه اپوکسي فتوليک آمين		11		
EP109	ویتیل استر اپوکسی		12		
ER100	اپوکسی بدون جلال		13		
EP215	اپوکسی میانی MIO		14		
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EP356	برايمر اپوكسي يلي آميد مخصوص آب آشاميدتي		28		
EP301	برایس ماستیک اپوکسی پلی آمید		29		
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EP303	بتونه اپوکسی		31		

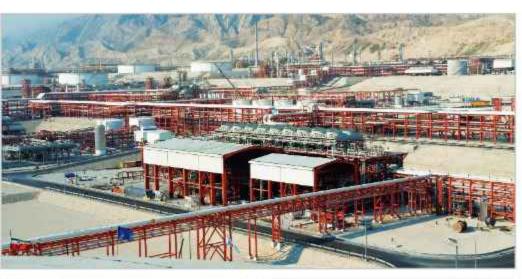
		جدول محصولات شركت اقيانوس آبي		
کد محصول	نام محصول	نوع رگ	رديف	
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AL312	پرایسر زینک گرومات		47	
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paint construction & industrial structures

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1000	1001	1002	1003	1004	1005	1006	1007
1011	1012	1013	1014	1015	1016	1017	1018
1019	1020	1021	1023	1024	1027	1028	1032
1033	1034	2000	2001	2002	2003	2004	2008
2009	2010	2011	2012	3000	3001	3002	3003
3004	3005	3007	3009	3011	3012	3013	3014
3015	3016	3017	3018	3020	3022	3027	3031
4001	4002	4003	4004	4005	4006	4007	4008
4009	5000	5001	5002	5003	5004	5005	5007
5008	5009	5010	5011	5012	5013	5014	5015
5017	5018	5019	5020	5021	5022	5023	5024
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6025	6026	6027	6028	6029	6032	6033	6034
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7008	7009	7010	7011	7012	7013	7015	4016
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8007	8008	8011	8012	8014	8015	8016	8017
8019	8022	8023	8024	8025	8028	9001	9002
9003	9004	9005	9010	9011	9016	9017	9018







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NANO PAINT & COA



Manufacturer of High Tech Industrials and Marine Paints

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